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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,291	12/12/2003	Jean Cotteret	LORE:009US	9949

7590

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Mark B. Wilson  
Fulbright & Jaworski L.L.P.  
Suite 2400  
600 Congress Avenue  
Austin, TX 78701

EXAMINER
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ELHILO, EISA B

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/735,291

Applicant(s)

COTTERET ET AL.

Examiner

Eisa B. Elhilo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,4,6,8,11,14,17-19 and 22-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,8,11 and 22-48 is/are rejected.
- 7) ☒ Claim(s) 14 and 17-19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1 A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/ 6/ 2006 has been entered.

2 The cancellation of claims 2,5,7,9-10,12-13,15-16,20-21 and 49 is acknowledged. Pending claims are 1,3-4, 6, 8, 11, 14, 17-19 and 22-48.

### *Claim Rejections - 35 USC § 103*

3 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-4, 6, 8, 11, 22-30 and 32-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laurent et al. (US 2002/0046431 A1) in view of Lim et al. (US 6,461,391 B1) and further in view of Lanzendorfer et al. (US 2002/0160965 A1).

Laurent et al. (US' 431 A1) teaches a hair dyeing composition comprising oxidation bases such as para-phenylenediamine compounds represented by a formula (1), in which R1 and R2 form together with the nitrogen to which they attached a 5- or 6-membered nitrogen-containing heterocyclic ring (see page. 10, formula (1) and page 12, paragraph, 0270) and wherein the composition further comprises vitamins and provitamins such as panthenol (pantothenol) as claimed in claim 32 (see page 21, paragraph, 0466), cationic polymers as

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claimed in claim 36 (see page 17, paragraph, 0393), thickeners and surfactants as claimed in claims 37-38 (see page 21, paragraph, 0466), other oxidation bases such as para-aminophenol as claimed in claim 39 (see page 12, formula (III)), wherein the oxidation bases are presented in the amount of 0.0005% to 12% which is within the claimed range as claimed in claim 40 (see page 13, paragraph, 0312), couplers such as 1,3-dihydroxybenzene (meta-diphenol) in the amount of 0.005 to 5% as claimed in claims 41-43 (see page 13, paragraph, 0314), direct dyes as claimed in claim 44 (see page 13, paragraph, 0317), hydroxylated solvents such as ethanol as claimed in claim 45 (see page 10, paragraph, 0254), oxidizing agents such as hydrogen peroxide as claimed in claim 46 (see page 21, paragraph, 0469). Laurent et al. also teaches a similar process for dyeing hair comprising applying to the hair the dyeing composition as described above and wherein the process is similar to those as claimed in claim 47 (see page 22, paragraph, 0477). Laurent et al. further, teaches multi-compartment devices for dyeing hair, which are similar to those, claimed in claim 48 (see page 27, claim 66).

The claims differ from the reference by reciting cationic tertiary para-phenylenediamines and as oxidation bases and vitamin derivatives chosen from specific species.

Lim et al. (US' 391 B1) in analogous art of hair dyeing formulation, teaches a composition comprising oxidation base of cationic tertiary para-phenylenediamine having a formula (1), which is similar to the claimed formula (1), when in the reference formula (1), R, R1 and R2 are alkyl radicals, R4 is hydrogen atom or an alkyl radical and R5 is a hydrogen atom as claimed in claims 1, 3-4, 6, 8 and 11 (see col. 2, lines 44-50) and when in the claimed formula (1), R2 represents the onion radical Z of the claimed formula (II), R3 is a hydrogen atom, n is 1 or 0 and R1 is an alkyl radical. The cationic tertiary para-phenylenediamine is represented in the

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amount of 0.01 to about 5.0%, which is within the claimed range as claimed in claim 33 (see col. 3, lines 43-46). Lim et al. further, teaches the compound [1-(-4aminophenyl)pyrrolidin-3-yl]trimethylammonium iodide which is structurally similar to the claimed compounds as claimed in claims 22-26 (see col. 13, Table 2, Example 16, compound 1).

Lanzendorfer (US' 965 A1) in other analogous art of hair dyeing formulation (see page 10, paragraph, 0180), teaches a composition comprising vitamin derivatives such as vitamin E ( $\alpha$ -tocopherols) and its esters  $\alpha$ -tocopheryl acetate (vitamin E acetate) and folic acid claimed in claims 1 and 27-30 (see page 6, paragraphs, 0086-0088) and wherein the vitamins are presented in the amount of 0.001 to 10% which covered the claimed percentage ranges as claimed in claims 34-35 (see page 8, paragraph, 0119).

Therefore, in view of the teachings of the secondary references, one having ordinary skill in the art at the time the invention was made would be motivated to formulate such a dyeing composition by substituting the heterocyclic para-phenylenediamine oxidation base of Laurent et al. by the cationic tertiary para-phenylenediamines as taught by Lim et al. and to incorporate the vitamin E derivatives as taught by Lanzendorfer et al. in the composition of Laurent et al, to arrive at the claimed invention. Such a modification would be obvious because Laurent et al. as a primary reference discloses the genus of para-phenylenediamine compounds as oxidation bases and vitamins in the dyeing composition. Lim et al. as a secondary reference clearly teaches that the quaternized pyrrolidine compounds are suitable primary intermediates for hair coloring compositions for providing good oxidative coloration of hair such as light fastness, fastness to shampooing, fastness to permanent wave treatment and suitable for providing a wide variety of different color shades with various primary intermediate and coupler compounds (see col. 2,

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lines 13-20). Lanzendorfer et al. as a secondary reference teaches a hair coloring formulation comprising the claimed species of vitamin E, and, thus, a person of the ordinary skill in the art would be motivated to substitute para-phenylenediamine oxidation bases of Laurent et al. by the cationic tertiary para-phenylenediamines of Lim et al. for providing good oxidation coloring of hair and to incorporate the vitamins of Lanzendorfer et al. as common vitamins which are useful in the hair treating formulation, and, thus, a person of the ordinary skill in the art would expect such a composition to have similar properties to those claimed, absent unexpected results.

4 Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laurent et al. (US 2002/0046431 A1) in view of Lim et al. (US 6,461,391 B1) and further in view of Evans et al. (US 5,750,122).

The disclosures of Laurent et al. (US' 431 A1) and Lim et al. (US' 391 B1) as described above do not teach or disclose the vitamin species of pantothenic acid as claimed

However, Laurent et al. US' 431 A1) clearly suggests the use of the vitamins such as panthenol (pantothenol) in the hair dyeing formulation (see page 21, paragraph, 0466).

Evans et al. (US' 122) in other analogous of hair treating formulation, teaches a composition comprising vitamin B complex such as panthenol, which is also known as pantothenol (see col. 3, lines 23-25) and pantothenic acid as a derivative of panthenol (see col. 10, lines 26-29).

Therefore, in view of teaching of the secondary reference, one having ordinary skill in the art at the time the invention was made would be motivated to modify the composition of Laurent et al. by incorporating the vitamin species of pantothenic acid as a derivative of panthenol to

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arrive at the claimed invention. Such a modification would be obvious because Laurent et al. (US' 431 A1) as a primary reference suggests the use of the genus vitamin panthenol (pantothenol). Evans et al. (US' 122) as a secondary reference clearly teaches the claimed species pantothenic acid as a derivative of panthenol (pantothenol), and, thus, a person of the ordinary skill in the art would be motivated to incorporate the claimed species of pantothenic acid as taught by Evans et al. in the dyeing composition of Laurent et al. and would expect such a composition to have similar properties to those claimed, absent unexpected results.

#### ***Allowable Subject Matter***

5        Claims 14 and 17-19 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record do not teach or disclose cationic para-Phenylenedimanie compounds of the claimed formula (II), in which x is equal 1. the prior art of record also do not teach or disclose para-phenylenedimanie compounds of the claimed formulae (III) and (IV).

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eisa B. Elhilo whose telephone number is (571) 272-1315. The examiner can normally be reached on M - F (8:00 -5:30) with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

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Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eisa Elhilo  
Primary Examiner  
Art Unit 1751

February 28, 2006